

Module code: MOD011346	Version: 1 Date Amended: 11/Apr/2025
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1. Module Title
Applied Nutrition and Feeding

2a. Module Leader
Sifelani Chikunya

2b. School
Writtle School of Agriculture, Animal and Environmental Sciences

2c. Faculty
Faculty of Science and Engineering

3a. Level
6

3b. Module Type
Standard (fine graded)

4a. Credits
15

4b. Study Hours
150

5. Restrictions			
Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:			

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

This module will help you build the knowledge and practical skills required to understand and apply aspects of feeding management to a wide range of animal species and explore how to solve common nutrition problems. You'll learn aspects of the legislation governing the feed industry, animal feed processing and manufacturing, as well as the practical feeding management of farm, companion and captive wild animals in zoos. You'll also develop important skills and a deeper understanding of nutritional assessment and ration formulation for both feeding practice and research. This module builds on the foundations from other modules in level 5, helping you apply that knowledge in real-world contexts.

Through regular references and the use of real-life case studies within lectures, you'll build your awareness of future career paths and develop your employability skills. Where appropriate, field trips, seminars and guest speakers will give you hands-on insights into how authentic animal feeding practices are carried out in animal industries.

6b. Outline Content

RATION FORMULATION: nutrient requirements, factors affecting requirements, feeding standards, feed composition tables and databases, methods of formulating rations such as Pearson's Square method and computer linear programming methods, concept of least cost diets etc.

LEGISLATION: statutory regulation of animal feeds and feeding, product quality guarantees, prohibited substances, labelling of animal feeds, withdrawal periods, UK and European Union feed regulations etc.

FEED PROCESSING AND MANUFACTURING: appraisal of the benefits of animal feed processing and application of the various techniques for raw ingredient processing in the feed industry. Appreciation of the use of animal feed additives.

APPLIED FEEDING: practical feeding of a range of animal species (e.g. fish, poultry, pigs, dogs, cats, rabbits, sheep, cattle) for various purposes e.g. maintenance, production, pregnancy, lactation, promoting health and longevity, for work and athletic performance etc.

FEEDING WILD ANIMALS IN CAPTIVITY: Case studies of feeding zoo animals. Physiological and psychological needs associated with feeds and feeding, nutritional limitations of captive environments, diet choice and diversity in relation to season, environment and individual needs. Problems of assessing nutrient requirements of zoo animals e.g. lack of known requirements, trial and error methods, domestic animal models, documented natural history of species, records from other zoos etc.

6c. Key Texts/Literature

The reading list to support this module is available at: <https://readinglists.aru.ac.uk/>

6d. Specialist Learning Resources

None

7. Learning Outcomes (threshold standards)		
No.	Type	On successful completion of this module the student will be expected to be able to:
1	Knowledge and Understanding	Understand the range ingredients and additives used to formulate animal feeds and appreciate the nature and operation of the animal feed industry.
2	Intellectual, practical, affective and transferrable skills	Comprehend and apply the principles of scientific rationing to diet design and feeding management of specific farm, companion and captive wild animals for a range of physiological conditions
3	Intellectual, practical, affective and transferrable skills	Evaluate the challenges and impact of nutritional management on the development of nutrition-related disorders in animals.

8a. Module Occurrence to which this MDF Refers				
Year	Occurrence	Period	Location	Mode of Delivery
2026/7	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	Hours	Learning Outcomes	Details of Duration, frequency and other comments
Lectures	30	1-3	Lectures
Other teacher managed learning	6	1-3	Field visits / workshops
Student managed learning	114	1-3	Self-Directed Learning
TOTAL:	150		

9. Assessment for the above Module Occurrence					
The assessment for some modules includes a presentation (see below for details on how this particular module is assessed). We recognise that presenting, especially to a large group, can cause significant anxiety or distress for some students. If this may affect you, please contact your Module Leader or the Disability and Neurodiversity Service as early as possible. We will work with you to consider appropriate reasonable adjustments. Depending on your individual needs, these might include, for example, presenting to a smaller group or presenting only to a member of academic staff.					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Examination Writtle	1-3	100 (%)	Fine Grade	30 (%)
Exam (3 Hours) - Closed-book, long essay-type (selection of questions from a seen question bank).					

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).

In addition, students are required to:

- (a) achieve the qualifying mark for each element of fine graded assessment as specified above**
- (b) pass any pass/fail elements**

[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]